REPORT DOCUMENTATION PAGE

Form Approver OMB No. 0704-0188

Public resorang series for this collection of information is estimated to everage 1 hour per resonant, including the time for reviewing instructions, searching existing data sources.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 1 Feb 84	3. REPORT TYPE AN Quarterly &	D DATES COVERED Development (1/10/83-12/8)
A. TITLE AND SUBTITLE ATTENUATION IN THE WEST 6. AUTHOR(S) Drs. Keith F. Priestley			5. FUNDING NUMBERS 61101E A04397
PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) University of Nevada Reno, NV 89557		e besidence	8. PERFORMING ORGANIZATION REPORT NUMBER
AFOSR BLDG 410 BAFB DC 20332-6448	NAME(S) AND ADDRESS((5)	10. SPONSORING/MONITORING AGENCY REPORT NUMBER F49620-83-C-0012

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT 126. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

Progress during the reporting period: (1) Installed relay-link for Mina digital station on Mt Ferguson (2) Prepared digital station for installation at Bodie (3) Designed fourth digital station for instalation south of NTS for S (c) S study



45.5

	16. PRICE CODE
17 SECURITY CLASSIFICATION 18. SECURITY CLASSIFICATION 19. SECURITY COF THIS PAGE Unclassified unclassified	

NSN 7540-01-280-5500

89 11 25



UNIVERSITY OF NEVADA - RENO - NEVADA - 89557

Mackay School of Mines Seismological Laboratory

Telephone (702) 784-4975

AJPYYO'R MR.

1 February 1984

Quarterly Research and Development Status Report

No. 5

1 October 1983 - 31 December 1983

ARPA Order:

4397

Program Code:

3D60

4-1

Name of Grantee:

University of Nevada - Rono

Grant Expiration Date

30 September 1984

Amount of Grant:

\$203,692

Grant Number:

49620-83-C-0012

Principal Investigators:

Keith F. Priestley Alan S. Ryall

Program Manager:

Keith F. Priestley

Short Title of Work:

ATTENUATION IN THE WESTERN

GREAT BASIN

Sponsored by
Advanged Research Projects Agency (DOD)
ARPA Order No. 4397
Monitored by AFOSR Under Grant 49620-83-C-0012

1. Research Program and Plan

- (a) Operate three wideband, digital seismic stations in the western Great Basin as a dispersed network.
- (b) Use data from these stations to examine variations in $m_{\pmb{\delta}}$ and $t^{\pmb{\delta}}$ from area to area in the western Great Basin.
- (c) Investigate ways in which high-quality digital stations may be used to improve seismic verification at regional distance ranges.
- (d) Study variations in the attenuation operator for multiple S_cS recorded at western U.S. stations.
- (e) Study m_b/M_s relationships for Mammoth earthquake sequence.

2. Status of Project

- (a) Progress During the Reporting Period:
 - (1) Installed relay-link for Mina digital station on Mt. Ferguson.
 - (2) Prepared digital station for installation at Bodie.
 - (3) Designed fouth digital station for installattion south of NTS for $S_{\rm c}S$ study.
- (b) Major Equipment Purchased During Reporting Period:
 - (a) replace 11/03 in digital recording system with 11/23 which allows more stations to be added to the digital network.
 - (b) Tectronics graphic terminals.
- (c) Change in Key Personnel During the Reporting Period: None.
- (d) Trips, Meetings, Papers Given During the Reporting Period:
- (1) Priestley's travel:
 - (a) to LaJolla, Calif. 10/19-22 for Global Digital workshop.
 - (b) to Livermore, Calif., 11/1-3 to collect broad-band digital data for Mammoth Mb/Ms study.
 - (c) to Menlo Park, Calif., 11/15-16 for Canadian Network data for Mammoth Mb/Ms study.
 - (d) to Sacramento, Calif., 11/21 to for CDMG strong motion data for Mammoth Mb/Ms study.
 - (e) to San Francisco, Calif., 12/7-8 for AGU meeting.

- (2) Ryall's travel:
 - (a) 11/3-4 DARPA panel meeting--TTBT--Washington, D.C.
 - (b) 12-8-8 AGU, San Francisco.
- (e) Problems Encountered: None.
- (f) Request made for a no-cost extension due to delay in installing final digital stations for S_cS study, and due to Ryall's anticipited leave to work for ARPA.
- (g) Fiscal Status:
 - 1. Amount currently provided in contract: \$203,692
 - 2. Expenditures and commitments to date: \$72,236
 - 3. Estimated funds required to complete this work: \$203,692
 - 4. Estimated date of completion of work: 30 June 1985